



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

Continuous Competence Development Model for Teacher Teams

The IT-Pedagogical Think Tank for Teacher Teams (ITP4T) in Global Classroom

Weitze, Charlotte Lærke

Published in:

Proceedings of the 13th European Conference on e-Learning ECEL-2014

Creative Commons License
Unspecified

Publication date:
2014

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Weitze, C. L. (2014). Continuous Competence Development Model for Teacher Teams: The IT-Pedagogical Think Tank for Teacher Teams (ITP4T) in Global Classroom . In R. Ørngreen, & K. Tweddell Levinsen (Eds.), *Proceedings of the 13th European Conference on e-Learning ECEL-2014* (pp. 578-588). Academic Conferences and Publishing International. <http://academic-conferences.org/ecel/ecel2014/ecel14-home.htm>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Continuous Competence Development Model for Teacher Teams

The IT-Pedagogical Think Tank for Teacher Teams (ITP4T) in Global Classrooms

Charlotte Lærke Weitze¹⁺²,

¹ResearchLab: IT and Learning Design, Aalborg University, Denmark

²VUC Storstrøm, Denmark

cw@learning.aau.dk

Abstract: This paper presents the development of the IT-Pedagogical Think Tank for Teacher Teams (ITP4T), a continuous competence development model. The model was co-designed following a design-based research approach with teachers from VUC Storstrøm's (VUC) Global Classroom (GC), an innovative hybrid synchronous videoconference concept (Weitze & Ørngreen 2014). The ITP4T model responds to the needs and challenges that the teachers and the organization in VUC's GC are experiencing in the new technological teaching environment. Ultimately, it aims to create a new practise for teachers, enabling them to create their own continuous competence development. This article describes how and why the different components of the model were developed in response to the teachers' challenges. Such challenges included lack of time, competence and support from the educational organisation to innovate learning design to correspond to the new technological learning environment. Using this model at a weekly two-hour meeting, we focused on creating motivating and engaging learning designs for the students, while gathering qualitative data in the process. This research found that it is possible to establish an agile ongoing practice enabling the teacher team to reflect, innovate and create. The model also provided teachers with thinking and acting technologies enabling change and the opportunity to anchor knowledge and locate new solutions for the frequent IT-pedagogical issues on a theoretical and practical level; this process empowered, engaged and motivated their daily working life.

Keywords: Pedagogical innovation, reflective learning, ICT integration, competence development in teams, organisational development with teams, developing and anchoring knowledge in the educational organisation.

1. Introduction

This paper presents a new continuous competence development model: the *IT Pedagogical Think Tank for Teacher Teams* (ITP4T). To develop this model, we used the design-based research method (DBR) with the teachers as co-designers, focusing on how to create innovative and motivating learning designs for teachers and students in a hybrid synchronous video-mediated teaching context.

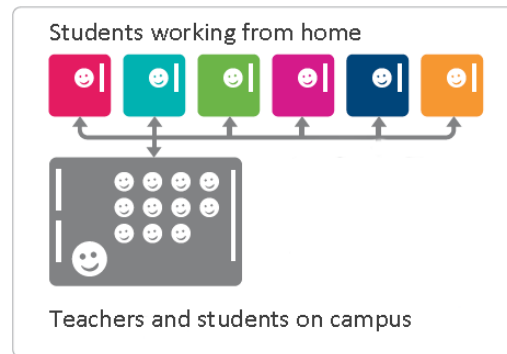
1.1 Purpose of the ITP4T model

The purpose of the ITP4T model is to provide teachers and educational organizations with a new practice and reflective tool that enables them to create pedagogical innovation in an ongoing and structured way, thus creating new sustainable designs for learning. The model responds to the needs and challenges met by teachers in *Global Classroom* (GC). These teachers have to become pedagogical innovators, adopting new educational technology and changing learning designs accordingly (Collins & Halverson 2010; Weitze & Ørngreen 2014). As students are the end-users, ITP4T seeks to create qualified and motivating learning opportunities (Hutters et al. 2013). ITP4T aims at providing a chance for competence development in the teachers' busy lives, using their daily problems as starting point and with team support in their close teaching environment (Dede et al. 2009).

1.2 Case

The case organization, *VUC Storstrøm*, an adult learning centre in Denmark, is applying the concept *Global Classroom* (GC). GC is a full-time upper secondary general education program lasting two year based on a hybrid synchronous virtual and campus-based videoconference concept. In GC, adult students daily can choose freely between participating in class from campus or from home; in this sense, the GC concept aims at breaking down the walls of the classroom. The aim of creating this flexible class is to offer a learning environment that responds to the need of adult learners, enabling them to complete their education while fitting it into family and working life. Earlier research has found that many students find this flexible form relevant and motivating in spite of challenges in the learning design and occasional technical difficulties (Weitze & Ørngreen 2014). The teachers combine traditional classroom-based teaching techniques with synchronous online teaching. This is due to that some of the students attend class via videoconference from home, and are represented via video and

sound on a screen in the classroom (Figure 1a and 1b). The teachers thus prepare their daily learning design without knowing how many students will be physically present in the classroom and how many will be attending online.



(a)



(b)

Figure 1: The Global Classroom (GC) set-up

1.3 Problem area

This section (1.3) seeks to provide an understanding of the background for this project, the development of an innovative team model (ITP4T). It begins by describing aspects of how the GC educational environment differs from a traditional environment before outlining some of the challenges that GC teachers face.

GC teachers are exploring new territory when teaching in this synchronous hybrid environment. To a great extent, teachers can use traditional learning design encompassing teacher lectures, student presentations, class discussions, group-work and off-line assignments. However, the teachers express that engagement and motivation factors can be challenging; for example, it can be difficult to activate the students at home and carry out a class discussion on equal terms for all students. This paper deals with these problematic aspects of GC teaching, aspects that call for pedagogical innovation. The teachers' statements show they are mentally taking the physical environment into consideration as a starting point when planning the learning design. Though this approach may have many advantages, the quality of the facilitated learning processes might also benefit from using online teaching strategies (Laurillard 2012; Beetham & Sharpe 2013; Harasim 2011; Bender 2003; Spector et al. 2008).

To establish a well-functioning learning environment, the aim of this videoconference system is to make the artefact (the videoconference system) a transparent detail in the interaction between the teacher and the students; in other words, the technology ideally disappears from the teachers' and students' immediate attention during the interaction process (Dourish 2004). However, this transparency experience disappears the moment technical problems occur. In fact, the smallest

technical flaw may eliminate the system's "invisibility". For instance, if the sound is unclear during a classroom discussion, the result will be a disturbance in the learning environment. In the GC learning environment, it is also relevant to consider the physical body. When learning in a traditional brick-and-mortar classroom, we seldom are conscious of our body, apart from in subjects like sports and art. Thus, our body can be regarded as transparent, so long as it is functioning well; it immediately engages with the space and objects in its proximity, and normally our postures and movements occur without the need for conscious reflection. In other words, this feeling of bodily-transparency lets us experience our body as being *in the world* and not separate from it (Dolezal 2009). When learning through the videoconference interface, the students at home are presented in the classroom via picture and sound, and the student at home can see and hear representations of the students and the teacher from campus. However, in the interaction with the classroom, the transparency of the body is broken because the students cannot act with their bodies in the classroom from home. For example, if the teacher hands out a paper in class, the students at home cannot feel and grab the paper. These different phenomena of broken transparency in GC call for attention and innovative learning designs.

In one of the many variations of blended and hybrid learning, the students work together in class, and then continue working asynchronously in a debate forum from home; in other variations all students work at home and interact through videoconference settings like Adobe Connect, or they work asynchronously through different interactive educational technologies. In these learning designs, all the students are in the same kind of "room or mode". However, in GC, the students are in two different rooms or modes at the same time, partly in class and partly at home. Some teachers have noted that when they focus their attention on the students at home, the students on campus start talking about other things. Similarly, during on-campus debates, the students at home tend to remain passive. As one teacher put it, "If I just had to teach an online class, I think it would be easier". This situation calls for new strategies providing the students with equal working conditions, for example, through the use of interactive educational technologies "inside" GC. There also have been challenges regarding the management and the teachers' shared understanding of what it takes to implement this new teaching concept (GC). Such issues may leave the teachers with a feeling of being victimized, since they find it difficult to find the time to learn and implement the needed pedagogical competence to create innovative learning designs.

1.4 Research area: Development of a pedagogical innovative practice

When analysing the above problem, one might interpret that the situation requires educational institutions to provide a space for teachers to experiment with and develop new GC learning concepts. Therefore, this project proposes a new kind of practice to enable pedagogical innovation based on the following aims: 1) Experimenting and co-designing with GC teachers through DBR to create a new continuous pedagogical innovative practice in the organisation based on teacher preferences; 2) working on theoretical and practical levels in this development phase, discussing and implementing the results in the process; 3) developing an agile working practice that enables the teachers to change teaching strategies in relation to current demands, new issues and the organization's strategies; and 4) providing a structured, reflective and pedagogically innovative way to experiment and find solutions that will empower the educational institution to move quickly in new directions, through the teachers' professional knowledge.

2. Research objective and methodology

The ITP4T model was developed as part of a PhD project researching the following question: "*What elements, methods, processes and practices can contribute to the creation of reflected, innovative and motivating learning designs, for teachers and students in a hybrid synchronous video mediated teaching context, with a focus on how to create motivating learning for the students?*" The teachers in GC participate in mapping and solving their own problems while developing innovative learning designs that involve digital technology. The research was conducted as a combined DBR and action research (AR) study, using the best and most meaningful approaches from both (Majgaard, Misfeldt and Nielsen 2011; Susman and Evered 1978). After the diagnosis and action-planning phases (Weitze, Ørngreen 2014), the research proceeds to step four and five in AR: taking action and evaluating (Susman & Evered 1978). Qualitative methods were used to investigate how the AR and DBR competence development experiments answered the research question. The data included field notes, audio and videotaped utterances, and observations from the described workshops and informal meetings (table 1).

The sub-questions for this part of the research process then becomes: *Which elements, practices and*

processes are essential in the following circumstances: 1) when creating a practice where change and anchoring can take place in the organization, 2) when teachers are seeking to become initiators and developers of their own visions and innovative teaching practices, 3) when creating tools and methods for innovating the teaching practice due to the continuous changes in educational technology, 4) when creating an organizational tool that enables continuous competence development in a sustainable form, thus giving teachers opportunities to participate in their daily visionary leadership, and 5) when attempting to move from a feeling of being victimized to being empowered teachers in GC.

Table 1: The material from the research process

1.Student evaluation workshop – a qualitative workshop, 14 participants	22 February 2013
2.Informal conversations with teachers	Spring 2013
3.Interviews with teachers – based on semi-structured interviews	15 April – 8 May 2013
4.Observation of global classroom teaching	Spring 2013
5.Planning of workshops with teachers together with project management	Spring 2013
6.8 workshops with teachers – co-design of ITP4T	Fall 2013
7.Conference – the teachers present the model, and their work in the model	October 2013
8.Examination: The teachers are finishing their course/workshop and are facilitators for a new teacher group, going through the model with a theme, and explaining the principles, - a new identity as teachers	January 2014
9.A new group of teachers start up using the ITP4T; they will start teaching in the Global Classroom concept from fall 2014.	Summer 2014
10.Questionnaires with the students and the teachers in Global Classroom	Summer 2014

3 Theoretical frame for the research and development of the ITP4T

This section will outline theory relevant to the current case for developing a continuous competence development model for teacher teams.

3.1 Pedagogical innovation

The use of educational IT is not new; however, the pace of new technologies and their educational applications continuously calls on teachers to develop new skills. When teaching, the teacher is preserving culture in the sense that he or she embodies an educational system that delivers value according to the current rules and regulations of the society and educational institution. At the same time, however, the teacher continuously changes pedagogies to encompass new needs and regulations. Implementation of educational IT often is initiated by the project management in the educational institution in order to leverage better and more inspiring learning. However, the implementation of IT can be a challenge for the teachers because they need time to experiment. This need can be approached from two angles: 1) investigating the current learning design in terms of how IT can contribute or 2) considering technology and experimenting with the learning design that can be generated from the new technological possibilities.

Innovation is a debated term but one definition of innovation is “those activities that based on new knowledge, are developing new opportunities, and in the utilization, generates added value” (Wikipedia, 2014). In this definition, innovation thus consists of ideas and creativity, inspired and informed by new knowledge that opens up new opportunities; perhaps most importantly, the innovation process comes to life, creates value and becomes more than just an idea. In pedagogical innovation, the teachers aim to create innovative learning designs with new opportunities that create added value for the students. Research shows that teachers do not fully utilize the available pedagogical and academic possibilities provided by IT (EVA, 2012). This fact indicates that teachers need to learn to work with IT learning tools, but also that they need support for the process of innovation and for the development of innovative thinking (Darsø 2011; Laurillard 2012). What is innovative for one teacher might be a traditional way of working for another teacher; therefore, the teachers benefit from working together and learning from each other's strengths while supporting one another's weaknesses. Working with innovation in teams is a strength because working in a dynamic community and not solely as individuals enables the construction of strong concepts that combine knowledge and non-knowledge in previously unknown but highly relevant ways (Darsø 2007; 2011).

Lotte Darsø (2011) has developed a pedagogical innovation model called *the innovation diamond* (ID), suggesting which knowledge and social frameworks promote innovation processes in groups. The ID thus constitutes an analytical tool for the preparation and planning of an innovative pedagogical development phase. The four areas in the diamond are knowledge, non-knowledge, conceptualizing and relationships.

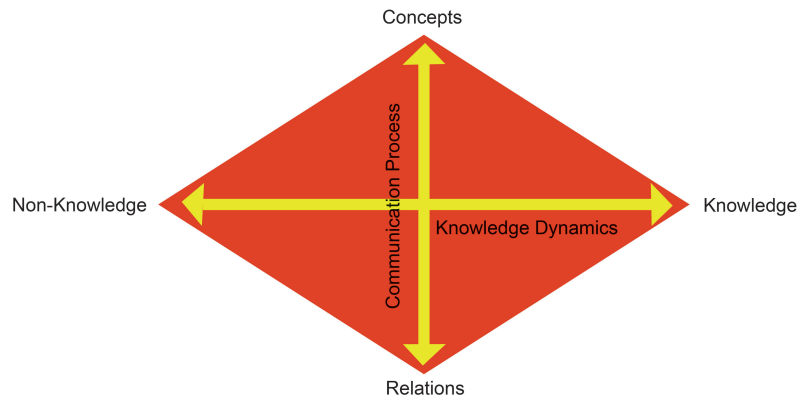


Figure 2: The Innovation Diamond (ID) (Darsø 2011).

The learning takes place through experience in practice - *learning by doing*. In essence, if all four corners of the diamond are considered, rich conditions will emerge for pedagogical innovation. When working in the model, the team starts out with a problem area or area of interest to be approached in the ID (Darsø 2011) and then approaches the non-known area creating new concepts.

3.2 Reflection and professional development for teachers

Pedagogical innovation is important when developing competence, but so is reflection (Dewey, 2008). Erling Lars Dale, professor in pedagogy, distinguishes between three levels of competence for the professional teacher: C1, C2 and C3 (Dale 1998). C1: The first competence-level is the teacher's execution of the daily teaching practice in class, with targeted learning and attention on the activities. C2: At the second competence-level, the teacher plans. She constructs, analyses and interprets the curriculum, produces training material and organizes professional, interdisciplinary and differentiated instruction. She formulates goals and evaluates as well as discusses current problems with colleagues. C3: The third competence level is a reflection space for the study of learning design theory and for critical reflection, development and research. To become a *professional teacher*, the educator must be able to reflect and develop her practice systematically in collaboration with colleagues with the use of professional theory (Dale 1998). For the GC teachers to be more professional teachers, it is relevant for them to reflect on the third competence level, C3, in teacher teams. For example, they obviously could be inspired by discussing online teacher development literature (Rice 2012; Bender 2003) or online virtual teacher courses (Coursera 2014).

It is not a new concept to work in teams in order to create ideal conditions for the teachers learning in educational institutions. However, research shows that when the teachers work in teams aiming at developing the best possible conditions for facilitating student learning processes, they often end up focusing on the practical functionality of the teaching: the practical, disciplinary and organizational aspects. Also, teamwork among teachers tends to happen in a culture with cosy, family-like structures, which can make it difficult to move beyond the participants' core beliefs and experiences (Tingleff 2012). Therefore, it is important to maintain a focus on creating innovative learning designs for the students, going beyond the borders of the teams' experiences and maintaining attention on working at the third level of competence, C3, in the innovative team process (Dale 1998).

4. Research design

In fall 2013, three teachers from the GC participated in a competence development project. The project was designed as two parallel movements: 1) A series of eight competence development workshops on which the teachers participated in *reflective and pedagogical, innovative, competency development educational workshops* to respond to the issues and needs expressed by the GC teachers (Weitze 2014). In the first four workshops, the researcher was responsible for leading the workshops. In the last four workshops, the teachers took over the competence development, while the researcher participated as a facilitator and debate contributor. The teachers' presented their version of the ITP4T model at a GC conference and later were examined as ITP4T-model teachers. In May

2014, two new teacher teams started using the ITP4T-model as a preparation for working in GC. 2) The second movement involved a participatory and iterative AR/DBR research project. At the workshops, the discussions and experiences were concerned with how to structure the innovative reflective pedagogical process. Methods heavily were discussed and reflected upon, using an appreciative inquiry approach (Mejlvig 2012). Between the workshops, the researcher evaluated the notes, utterances and observations in order to develop and refine the ITP4T model. The researchers' active way of participating in the workshops calls for attention on her role, with a danger of biasing the research, while at the same time, making it possible to observe, analyze, bring up relevant theories and share these reflections with the teachers in the iterations.

5. Theoretical and grounded analysis of the empirical data

The following is an overview of the ITP4T model (figure 3), describing how it was developed as well as some of its theoretical foundations.

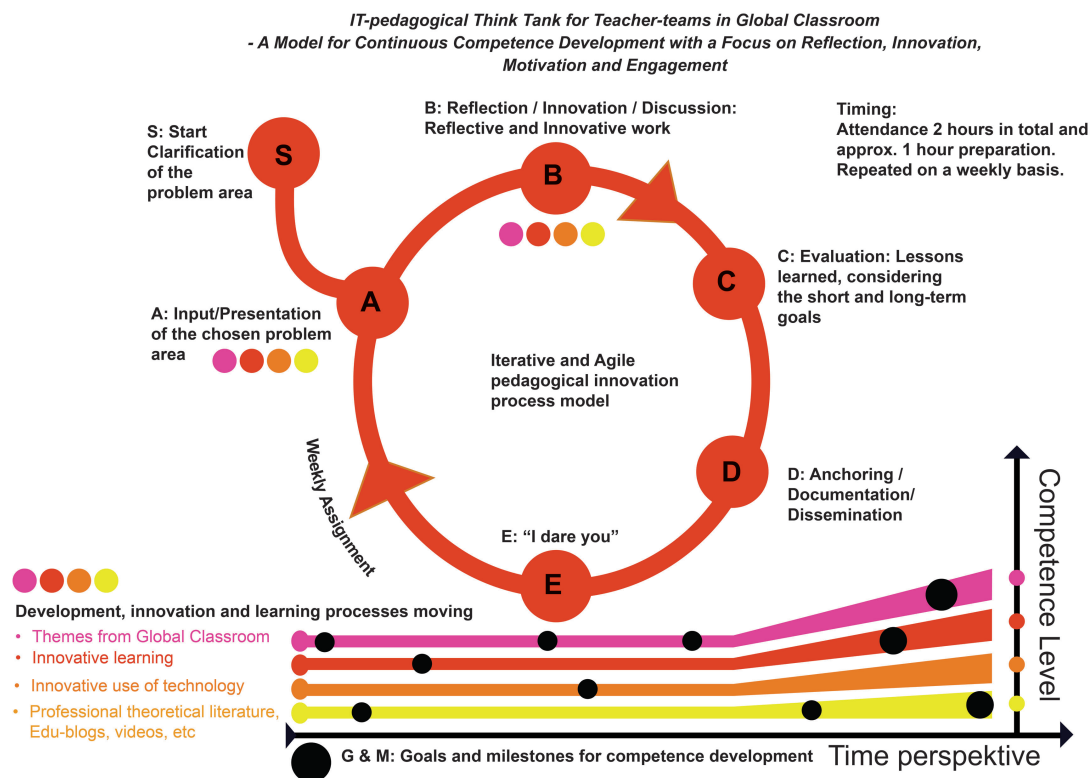


Figure 3: IT-pedagogical think tank for teacher-teams (ITP4T). Please see description below.

The goals and milestones involve development, innovation and learning processes and are illustrated as the coloured lines and black circles at the bottom of the model in Figure 3. The ITP4T-model consists of five points: **A-E** that are carried out, or performed, by the teacher team at the weekly two-hour meeting, followed by the weekly assignment (Figure 3). The development of goals and milestones for the competence development is an important part of the model. It is also important to develop a strategy for how to integrate the collaboration and knowledge exchange with management; thus, this model also encompasses organisational development. The teachers contributed to the model initially by describing their problematic issues (illustrated as S in figure 3) by working with the suggested new practices and by experimenting with and reflecting on the different parts and iterations of the model. In this manner, they qualified the model by participating in the design process.

In the following section, each workstation (**A-E**) or area of the ITP4T model will be described in terms of the following: 1) problem areas; 2) experiments: empirical and theoretical background for experiments, co-design with the teachers, findings in the research process; and 3) summary of the recommendations for each point as an analytic result of the research.

5.1: G & M) Goals and milestones for the competence development (Figure 3: G & M)

Problem area: The teachers found it difficult to be innovative and find time in their daily lives to develop competences for teaching in GC, and to distinguish what the problems actually were in GC (Weitze & Ørngreen 2014). The teachers acknowledged that they needed to train using different interactive pedagogical technologies, but also realized that they had to experiment with how they could develop and use the technology from a pedagogical angle. This experimentation would help them develop a sense of how to combine the learning design with technology use in order to enable motivating learning for the students. This example shows the necessity of developing a common understanding and sense of how learning design and technology are two sides of the same coin; they are two parts of the same practice that cannot be separated. They also are deeply individual, needing to be innovated upon over time (Weitze & Ørngreen 2014; Dourish 2004; Orlikowski 2010).

Experiments and findings: S) (Figure 3: S - the *Starting point*). In the first workshop, the teachers began clarifying the problem area and brainstorming on what kind of competences they wanted to develop. The teachers thus created visions for the educational organization from the outset with their own relevant professional context. The teachers used an online collaborative post-it tool for the brainstorm "taking their own medicine" by training in the use of interactive tools in the innovative processes. The brainstorm was inspired by discussion of learning designs (Selander, 2008) as well as by the problems and advantages of teaching in GC. The questions and ideas from this brainstorm was made into a list and documented in the teachers' Learning Management System (LMS). In the new team (May 2014), the issues were stored in an interactive agile project development tool (www.trello.com) that enabled them to prioritize and keep track of the goals and milestones they had for the different areas of their competence development.

Recommendations: By brainstorming (S – in figure 3), developing, setting milestones (figure 3: G & M) and continuously evaluating the problem areas and competence goals, the team should become initiators and developers of their own visions and innovative teaching practices. The model shows four main development areas within which the teachers are developing competence: 1) themes from the GC, 2) innovative learning design, 3) innovative use of educational technology, and 4) professional theoretical literature within the pedagogy and other relevant subject matters (e.g., edu-blogs, videos, etc.). These divisions are rather artificial because the themes are intertwined; however, it can be beneficial to regard them as different entry points to the issues.

5.2 A) Input/Presentation of the chosen problem area by the team leader of the day (10 minutes)

Problem area: Initially, the teachers had problems finding time and being explicit about the problem areas of working in GC. They also felt "victimized" by management because they believed they faced large demands, lack of support and few possibilities for relevant competence development, though they had participated in various edu-technological courses arranged by the management. The teachers dealt with their issues individually, but lacked an established practice that enabled them to discuss, experiment, and gain knowledge and competence in cooperation with colleagues.

Experiments and findings: In the workshops, the teachers began by prioritizing their issues. Following this approach, the teachers took turns being team leader of the day. The team leader researched the problem area, made a presentation, unfolded and thematised the problem, added new knowledge and ended with a call for debate and conceptualization. By taking turns, the teachers could pick the subjects that they found most pressing and relevant. They found it fulfilling to bring their individual issues up for debate. Examples of themes were: reflection and pedagogical innovation in teams, knowledge sharing, activation of the students at home, discussion of online interactive tools and use of learning games in GC.

Recommendations: The research showed that, though the teachers initially resisted being the "team leader" and leading the innovative process, they became positive and empowered by developing and conceptualizing their own relevant issues. The theme could be chosen by one of the teachers, by the whole team or by the management; it is also possible to have an expert as team leader for one or more days to achieve new competencies. To keep pace when moving through the ITP4T model, the teachers found it important that the team leader acted as a facilitating timekeeper.

5.3 B) Reflection/Innovation/Discussion: The team is working (one hour) (Figure 3: B)

This process involved development of new learning design concepts, C3 reflection on general pedagogical and theoretical issues, conceptualisation and experiments with new innovative learning designs, experiments involving new educational IT and discussing new organisational regulations and needs.

Problem area: The first evaluations (Weitze & Ørngreen 2014) showed that the teachers could benefit from theoretical knowledge about innovative pedagogical and reflective processes,

management of innovative teams, knowledge development and knowledge sharing in teams. It would also be advantageous for them to gain experience in explicit discussions of their own learning design.

Experiments: With Darsø's (2011) Innovation Diamond (Figure 2) and Dale's (1998) C3 third level of pedagogical professionalism as frameworks, or technologies of thought, the teachers worked on innovating and conceptualising their theme of the day.

Recommendations and findings: Within the chosen framework and beginning with well-planned presentations, the teachers conducted highly innovative and qualified discussions and were able to move quickly into new directions. Darsø (2011) recommends letting the team members be responsible for the different areas in the innovation model (knowing, non-knowing, conceptualising and relations). The findings indicated that, though the framework was a good technology of thought, the team members felt uncomfortable identifying themselves with one specific area, but acknowledged the areas as relevant for moving forward in the innovative process. Another finding was that the teachers emphasized the importance of taking responsibility for keeping the discussions at the C3 level of competence in order to enable the development of professional and qualified concepts; in this way they avoided going into functional discussions about other practical matters. They also emphasised the advantage of using the ID as a conceptual framework, guarding positive relations but also asking provoking questions going beyond the team members' established experiences and teaching norms.

5.4. C) Evaluation: Lessons learned, considering the short and long-term goals (10 minutes)

Experiments and recommendations: (Figure 3: C) In the evaluation of new concepts, the teachers made formative and summative evaluations of the competence goals for 1) the current day, 2) the long term and 3) future aims and goals. The goals could be for the individual teacher, the team or the organization. The teachers found the evaluation important because it constituted their new concepts into a common language and supported the team in prioritizing and developing their future goals for competence development.

5.5 D) Anchoring/Documentation/Dissemination: (15 minutes) (Figure 3: D)

Problem area: Knowledge sharing is a difficult art in an educational institution, and the teachers expressed that they seldom had opportunities for it in their daily working lives. Elements, methods, processes and practices in new educational projects also can be regarded as new organizational knowledge. Research shows that it is difficult to anchor projects when the project period has passed (Henriksen 2011). Therefore, it is important that the teachers have possibilities to exchange knowledge among their colleagues in order to enable development and anchoring of the new project.

Experiments: For the benefit of memorization and common conceptualization of the issues and their solutions, knowledge sharing took place in a structured way on an LMS-platform that was available to all GC teachers and the organization. The LMS provided an opportunity for all teachers to participate in creating and using the new knowledge. Furthermore, an official website was created to inspire the teachers with new learning designs and technologies. The form of the knowledge sharing was discussed heavily, both in terms of oral/written documentation and dissemination: the group discussed how much to write, in which genre and accessibility. The teachers also suggested and discussed verbal dissemination at pedagogical meetings.

Recommendations: When the two new GC teams started, they first asked if there was any written advice on positive experiences from GC learning designs. This anecdote shows the importance of disseminating the innovative knowledge within the organization. However, the shape of the documentation and the structure of the dissemination remain research areas worth investigating, for both written and verbal modes. The teachers became accustomed to documenting their work from the ITP4T model and emphasized that it was an important practice at the end of the workshops.

5.6. E) "I dare you": The challenge (15 minutes) (Figure 3)

Problem area: The teachers could not find time to develop and experiment with new learning designs for the GC environment and expressed that they lacked the appropriate knowledge.

Experiments and recommendations: The meaning and purpose of the term "I dare you" is to focus on this point while keeping a light atmosphere: can we challenge each other in a way that takes us beyond our comfort zone while remaining fun and motivating? The team leader of the following week agreed with the team on a fixed assignment for the next week's meeting as preparation for the next theme. The assignment of the week could be: reading new theoretical literature, conducting relevant and motivating experiments with the class, finding new interactive collaborative technologies or conducting an online discussion about the subject for next week. Sometimes, this assignment was an experiment with the students and would then be experimented on, discussed and elaborated on for

more than a week. For the teachers, an important aspect of this assignment was the requirement to create a product for the next team meeting rather than just considering an issue; teachers noted that this product was a crucial point for moving forward. The teachers emphasized that it made a big difference for them. The ITP4T model then started all over again the following week, enabling continuous competence development for and by the teachers. (Figure 3: A-E)

6. Discussion

In the discussion following the teacher's exam in the ITP4T model, the teachers emphasized the importance of the management's willingness to engage in and support this way of working in innovative pedagogical teams. The local manager participated for approximately 15 minutes in most workshops, which enabled knowledge sharing and motivated the teachers to focus on teamwork during the week. The management's role should be discussed in the educational institution, and if the institution is to benefit from the teachers' new concepts and visions, it might call for a new distribution of leadership and initiatives between the management and the teachers in certain areas.

The model consists of a "list of rules", but to function, it is important to decide and actually *do* the new team practice, collaborating in the team and personalizing how to work in the model on a weekly basis. The teachers were examined in the ITP4T model by making a new workshop with 4 teachers while demonstrating that the learning goals were reached (Appendix). The exam experience clearly contributed to a new kind of professional identity for them. Teaching new teachers will also be an authentic way to disseminate the model to the rest of the organization, since the teachers disseminate their own version of the team model like "ripples in the water". The ITP4T model resembles other models in terms of teamwork, and it has been inspired by the action research and problem-based approaches. The contribution of the ITP4T-model is its ability to provide an ongoing practice and a structure with an emphasized focus on pedagogical innovation and reflection, with a foundation in the teachers' and organizations' relevant professional issues and problems, enabling change and structured anchoring of the new innovative concepts—a visionary contribution to the educational institution. The new team practice allows the teachers to have an identity not only as teachers but also as (self-regulated) learners. The findings indicated that the teachers had a more positive perspective on their own ability to create changes after the workshops. In addition, they valued the professional support they gave each other in the team when developing new learning concepts. As one of the teachers in the workshops put it, "If VUC Storstrøm wants to be one of the best adult education centers in the country, this is perhaps one of the ways to do it. But the management must want it." In the eight workshops, we followed specific learning goals encompassing pedagogical innovation, reflection and learning designs (see Appendix). These learning goals served as guiding points when choosing the content and shape for these first workshops, and therefore, should be seen as a contribution to the current version of the ITP4T model. Though the teachers approved the ITP4T model, it was only developed and used by a small group. It also should be mentioned that these teachers had a positive attitude about participating in this experiment. However, the pace at which the teachers moved through the issues and came up with new pedagogical innovations indicates the great potential of the model in other new educational environments involving technology.

7. Conclusion

The ITP4T-model has proved as a sustainable continuous competence development practice, consisting of elements of pedagogical innovative and reflective *thinking and acting technologies* and with practices and processes enabling change and anchoring of the new conceptualizations developed by the teachers. The teachers became empowered initiators and developers of their own innovative pedagogical concepts concerning development of new learning designs and implementation of new technology in GC. For the success of this practice it is important that the management supports and engages in the practice with resources, by participating and by being open towards a possible change in the distribution of leadership and initiatives between the management and the teachers. At the moment an ITP4T-guidebook is produced for future teams.

8. References

- Beetham, H. and Sharpe, R. (2013) *Rethinking Pedagogy for a Digital Age: Designing for 21st Century Learning*, Routledge. New York.
- Bender, T. (2003) *Discussion-Based Online Teaching to Enhance Student Learning: Theory, Practice, and Assessment*, Stylus Publishing, LLC. Virginia.
- Collins, A. & Halverson, R. (2010). "The Second Educational Revolution: Rethinking Education in the Age of Technology", *Journal of Computer Assisted Learning*, Vol. 26, pp. 18–27.

- Coursera (2014), https://www.coursera.org/specialization/virtualteacher/10?utm_medium=listingPage
- Dale E.L. (1998) *Pædagogik og Professionalitet*. Forlaget Klim. Århus.
- Darsø, L. (2011), *Innovationspædagogik - Kunsten at Fremelske Innovationskompetence* (1.udgave). (*Innovation pedagogy - the art of cultivating innovation competence*). Samfundslitteratur.
- Darsø, L. (2007), "Is There a Formula for Innovation?", *Learning Lab Denmark, Aarhus School of Education*. (original published in Danish in 2003).
- Dede, C., Ketelhut, D.J., Whitehouse, P., Breit, L., McCloskey, E. (2009), "A Research Agenda for Online Teacher Professional Development", *Journal of Teacher Education*, Vol. 60, issue 1, pp. 8-19.
- Dewey, J., Rorty, R. (2008), *The Later Works of John Dewey, Volume 8, 1925-1953: 1933, Essays and How We Think*. Southern Illinois University Press.
- Dolezal, Luna (2009), "The Remote Body: The Phenomenology of Telepresence and Re-Embodiment", *Human Technology*, Vol. 5, No. 2. 208-226.
- Dourish, P. (2004), *Where the Action Is: The Foundations of Embodied Interaction*, MIT press, Cambridge, MA.
- EVA (2012), "Skoler Skal Hæve Ambitionerne", <http://bit.ly/17y1hUC>, accessed 12.6.2014.
- Harasim, L. (2011), *Learning Theory and Online Technologies*. Routledge. New York.
- Henriksen, T.D., et al. (2011), "Har Projekter et Liv efter Deadline? (Does Projects have a life after deadline?) Skoleudvikling fra Projekt til Forankring", *Cursiv*, Vol. 8, pp.83-102.
- Hutters, C., Katznelson, N., Sørensen, N.U., Juul, T.M. (2013), *Unges Motivation og Læring: 12 Ekspertter om Motivationskrisen i Uddannelsessystemet*, Hans Reitzels Forlag, København.
- Laurillard, D. (2012). *Teaching as a Design Science: Building Pedagogical Patterns for Learning and Technology*. Routledge. New York.
- Majgaard, G., Misfeldt, M., Nielsen, J. (2011). "How Design-Based Research and Action Research Contribute to the Development of a New Design for Learning", *Designs for Learning*, Vol. 4, No. 2, p.8-8.
- Mejlvig, K. (2012), "Appreciative Inquiry – anerkendende udforskning", in eds. Duus, G. et al: *Aktionsforskning - en grundbog*, Samfundslitteratur, pp. 215-227.
- Orlikowski, W.J. (2010), "The Sociomateriality of Organisational Life: Considering Technology in Management Research", *Cambridge Journal of Economics*, Vol. 34, No. 1, pp. 125-141
- Rice, K (2011), *Making the Move to K-12 Online Teaching: Research-Based Strategies and Practices*, Pearson.
- Susman & Evered (1978), "An Assessment of the Scientific Merits of Action Research", *Administrative Science Quarterly*, Vol. 23, pp.582-603.
- Spector, J.M., Merrill, M.D., Elen, J. & Bishop, M. 2008, *Handbook of Research on Educational Communications and Technology*, Springer. London.
- Tingleff Nielsen, L. (2012), *Teamsamarbejdets Dynamiske Stabilitet: En Kulturhistorisk Analyse af Læreres Læring i Teams*, Forlaget UCC. København.
- Weitze, C.L. & Ørngreen, R. (2014), "The Global Classroom Model Simultaneous Campus- and Home-Based Education using Videoconferencing", *The Electronic Journal of e-Learning*, Vol. 12, No. 2, pp. 215-226.
- Weitze, C.L. (2014), "IT-pedagogical Think Tank for Teacher-Teams in Global Classrooms: A Model for Continuous Competence Development with a Focus on Reflection, Innovation, Motivation and Engagement," Paper for Designs for Learning 2014, 4th International Conference, Expanding the Field, 6-9 May 2014, Stockholm, Sweden: Conference Proceedings.
- Wikipedia (2014), Innovation, <http://da.wikipedia.org/wiki/Innovation>

9. Appendix

Learning Goals for the Eight Workshops

After the course, the team members will be able to do the following:

- Describe own learning design and identify and formulate possible problem areas in the current educational context.
- Select and plan the use of and create a process of collective reflection about relevant literature in relation to the team's experience of current issues.
- Develop and carry out a process leading to individual goals for innovation, both in the short and long term.
- Master innovative tools that can be used in the innovation process in a pedagogical team.
- Be innovative concerning their own teaching, involving both technology as well as new/innovative learning designs.
- Organize and lead an innovative team process.
- Choose a strategy and method for knowledge development, knowledge sharing and anchoring in the team.